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Filed : December 29, 2003

REMARKS

In response to the Office Action mailed August 10, 2005, Applicant respectfully requests that the Examiner reconsider the above-captioned application in light of the above amendments and the following comments.

The Claims Comply with 35 U.S.C. § 112

The Examiner rejected Claims 24 and 27-28 under 35 U.S.C. § 112, second paragraph, as being indefinite. More specifically, the Examiner identified certain informalities in Claims 24 and 27. Such informalities have been corrected by the above amendments. As such, the Examiner's concerns are resolved, and Applicant respectfully requests that the Examiner withdraw the rejection.

There is No Motivation to Combine Vanderminden, Berry and Rowland

In the Office Action, the Examiner rejects several claims based on the combination of the Vanderminden, Berry, and Rowland references. Applicant respectfully contends that there is no motivation to combine the Vanderminden, Berry and Rowland references. Further, even if these references are combined, there are important limitations to such combinations.

Examiner May Not Pick and Choose Aspects While Ignoring Others

The Examiner is reminded that it is impermissible to "***pick and choose from any one reference only so much of it as will support a given position to the exclusion of other parts necessary to the full appreciation of what such reference fairly suggests to one skilled in the art.***" Bausch & Lomb v. Barnes-Hind/Hydrocurve, 230 U.S.P.Q. 416, 419 (Fed. Cir. 1986) (emphasis added).

As Applicant has noted previously, Vanderminden is directed to a swivel rocker chair, and Rowland teaches a single-leaf spring for a vehicle. Berry also teaches a leaf spring for a vehicle suspension. The flexure 25 and legs 27 structure used in Vanderminden's rocking chair is fundamentally different than the leaf springs of Berry and Rowland. For example, the Berry and Rowland leaf springs contemplate use in a car suspension in which the mounts of the spring are in a fixed position relative to one another. In contrast, mounting ends of Vanderminden's legs 27, which are connected to one another via the flexure 25, move relative to one another. Accordingly, the Vanderminden structure operates in an entirely different manner than either the

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Berry or Rowland leaf spring, and the Berry and Rowland springs would NOT be appropriate for use in a Vanderminden-like device.

Further, the structure of Vanderminden and the springs of Berry and Rowland are built for vastly different types of loads. Vanderminden's structure is directed to a force urging opposing ends of the flexure 25 toward one another, and corresponding movement of the ends in fact occurs. In stark contrast, Berry's and Rowland's leaf springs are designed for a force directed in a direction generally perpendicular to a line between the ends of the spring (See Rowland, Figures 1 and 11); the ends of Berry's and Rowland's springs are fixed and immovable relative to one another. The force application on the Vanderminden flexure 25 is transverse to the force application of either the Berry or Rowland spring. Again, this is vastly different.

The teachings of Vanderminden are directed to different applications and needs than those of Berry and Rowland, and the structure of Berry or Rowland does not transfer appropriately to Vanderminden. For example, even if, as the Examiner suggests, a leaf spring-like channel is indicated for Vanderminden's structure, then only the flexure 25 portion (which operates as a spring) would have such a channel; there is no reason or teaching for extending such a channel to the legs 27. Again, remember that Berry and Rowland only teach a channel on a curving portion of a leaf spring, and Rowland's spring has a constant radius of curvature. The cross-sectional shapes of portions of Berry and Rowland cannot be divorced from their application and behavior, which is totally inconsistent with Vanderminden. As such, a person of ordinary skill in the art would not be motivated to combine them.

The Examiner also contends that a combination of Vanderminden, Berry and Rowland may be further combined with Holmstrom. Applicant respectfully disagrees. The Examiner uses Holmstrom for the teaching of a hole for fasteners being formed in the spring. However, as shown clearly in Rowland (see Fig. 1), leaf springs are not conducive to mounting arrangements that employ such holes. Instead, Rowland teaches the spring member being formed into eyes 5 at each end, and the eyes 5 attached to a car frame D by way of a shackle F. A person of skill in the art would not be motivated to create a fastener hole in Rowland's or Berry's leaf spring. As such, there is no motivation to combine these references.

The Examiner further contends that a combination of Vanderminden, Berry, Rowland, and Holmstrom may be further combined with Magnuson. The Examiner maintains that the addition of Magnuson to this already large collection of patents teaches a slot 58f to facilitate

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adjustability. However, Magnuson makes no mention of adjustability in connection with the slot 58f (see Magnuson, col. 5, ll. 12-26). This “motivation” is not taught in the references, but is suggested only by the Examiner, and thus is inappropriate.

There is no motivation to make the combinations of references upon which the Examiner bases the rejections. Accordingly, such combinations are inappropriate, and Applicant respectfully requests that the Examiner withdraw the rejections based on such combinations.

Claims are Patentable Over Vanderminden+Berry+Rowland

The Examiner rejected Claims 1-5, 7-10, 12, 16-18 and 25-28 under 35 U.S.C. § 103(a) as unpatentable over the combination of Vanderminden, Berry, and Rowland. Certain of these claims have been amended, and none of the cited references, taken alone or in combination, teaches or suggests all of the limitations of the claims as presently constituted.

As noted above, Berry’s and Rowland’s leaf springs are appropriate for car suspensions, but are totally unrelated to flexible couplings for coupling a chair member to a base member. The mode of spring loading of the coupling mechanisms of independent Claims 1, 4 and 16 is transverse to the vehicle leaf spring loading of Berry and Rowland.

Further, as best shown in Figures 1 and 11 of Rowland, a leaf spring is mounted at mounts that are in a fixed relationship relative to one another. In contrast, the C-spring of Claim 1 is “configured so that the first and second ends displace generally toward one another as the curved segment deflects”; “the first and second ends” of the elongate member of Claim 4 are “free to move relative to one another upon deflection of the curved segment”; and Claim 16’s curved segment curves at least 180 degrees and is “configured to flex when the first and second ends are moved relative to one another”. These claimed aspects are at least inconsistent with operation of the Berry and Rowland leaf springs, and thus Berry and Rowland’s leaf springs are nonanalogous art that aren’t properly considered in connection with these claims.

Still further, Claim 1 recites, *inter alia*, a flat, elongate top segment, a flat, elongate bottom segment, a curved segment, and a central channel extending from a first end to a second end; Claim 4 recites, *inter alia*, a top segment, a bottom segment and a curved segment, the top and bottom segments being substantially flat and parallel, wherein a central channel extends longitudinally along said outer surface; and Claim 16 recites, *inter alia*, an elongate, generally flat upper segment, an elongate, generally flat lower segment, a curved segment between the

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upper and lower segments, the curved segment configured to flex, and a channel extending longitudinally from a first end to a second end.

Even if the recited combination were considered to teach a channel on a curving spring structure, it is clear that Berry and Rowland do NOT teach, or provide any motivation for, such a channel on a flat portion, which is clearly not analogous to the Berry and Rowland leaf springs. For example, Rowland's construction has the specific purpose of making stress under loading constant throughout the spring length (see Rowland, col. 1, ll. 16-20; col. 3, ll. 4-6). Thus, Rowland's leaf spring maintains a particular arcuate shape. Rowland's purposes would be frustrated if its groove were extended to a flat portion.

Not only should these references not be combined, but even if combined they do not teach or suggest the claimed invention. Accordingly, Applicant respectfully requests that the Examiner remove the rejection of independent Claims 1, 4, 16 and 20, and all of the claims that depend therefrom. Nevertheless, additional claims will be discussed in more detail hereafter.

Claim 12 Recites Particularly Advantageous Dimensional Properties

With specific regard to Claim 12, the Examiner contends that it would be an obvious matter of design choice to have the side portion 30% thicker than the center portion, and contends that the Applicant does not point out any particular advantage of this dimension. Applicant respectfully traverses the Examiner's statement.

As specifically noted in the specification, Applicant desires to use aluminum for its outdoor furniture in order to take advantage of aluminum's anti-corrosion properties. However, flexible coupling members made of aluminum previously have not been capable of providing the desirable qualities of a steel spring, and thus aluminum coupling members had not met with widespread success prior to Applicant's invention. (See Specification, ¶¶ 7, 9, 10). One distinct advantage of Applicant's invention is its advantageous applicability with aluminum. The preferred embodiments disclosed in the specification (see ¶26) are formed of an aluminum alloy. Paragraphs 31-33 of the specification discuss a "unique profile" that provides "a smooth and predictable rocking motion over a wide variety of body weights." Paragraph 33 sets out dimensions for a particularly preferred embodiment having this unique profile, in which side portions are about 30% thicker than a center portion.

Applicant's specification specifically discusses a particular advantage of the dimensional relationship recited in Claim 12, which is an important discovery. Accordingly, the subject

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matter of Claim 12 is not merely a matter of design choice, but is a patentable inventive improvement.

Claim 20 Recites Patentable Method

The Examiner also rejected Claim 20 under 35 U.S.C. § 103(a) based on the Vanderminden+Berry+Rowland combination. Claim 20 has been amended, and clearly defines limitations not taught or suggested in any of the cited references, taken alone or in combination.

Claim 20 recites, *inter alia*, a method of manufacturing a flexible coupling mechanism configured to resist lateral movement, comprising providing at least two generally flat, elongate spring members each having a channel extending along the surface of a first side substantially from a first end to a second end, and bending each of the elongate members to create a substantially flat, elongate upper section, a substantially flat, elongate lower section, and a curved section bent at least about 180°. As discussed above, even if the cited references are combined, they cannot be interpreted to teach the above limitations.

Claim 20 further recites, *inter alia*, providing an elongate connector comprising a pair of spaced apart mount surfaces, each mount surface being contoured so as to be complementary to the channel of the corresponding elongate member in a direction generally transverse to the elongate connector, and attaching the lower sections of each bent elongate member to the connector so that the bent elongate members are spaced apart from one another and the channel of each elongate member complementarily engages the corresponding mount surface.

These limitations are not found in the cited references, taken alone or in combination. As such, Applicant respectfully requests that the Examiner remove the rejection of Claim 20 and Claims 22-23, which depend therefrom.

Claim 11 Recites Patentable Subject Matter

The Examiner rejected Claim 11 under 35 U.S.C. § 103(a) as unpatentable over the Vanderminden + Berry + Rowland combination, and additionally combined Holmstrom for the concept of a hole adapted to receive a fastener. As discussed above, this combination is inappropriate, as there is no motivation to combine these references when the entirety of the teachings of the references are considered. Additionally, this combination does not teach or suggest all of the limitations of Claim 11 when taken as a whole, such as a mount component having a mount surface specially contoured to complement the contour of a C-shaped member

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outer surface in a direction transversely across the mount (as recited in Claim 10, from which Claim 11 depends).

Claims 23 and 24 Recite Patentable Subject Matter

The Examiner rejected Claims 23 and 24 under 35 U.S.C. § 103(a) as unpatentable over a combination of five references from three different types of art: Vanderminden and Holmstrom from rocking chair art, Rowland and Berry from leaf spring art, and Magnuson from stationary chair art. As discussed above, there is no motivation to make this large-scale combination of disparate art, and thus the combination is inappropriate and unfair.

CONCLUSION

For the reasons stated above, Applicant contends that there is no motivation to combine the references combined by the Examiner, especially considering that it is impermissible to simply pick and choose aspects of references without considering their overall teachings. Additionally, the recited references do not teach or suggest all of the limitations of the claims as amended.


As such, Applicant respectfully contends that the present application is now in condition for allowance, and such action is respectfully requested. Should the Examiner have any further issues remaining or require further clarification, the Examiner is invited to contact the undersigned at the telephone number below.

Please charge any additional fees, including any fees for additional extension of time, or credit overpayment to Deposit Account No. 11-1410.

Respectfully submitted,

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